



United States
Department of
Agriculture

Forest
Service

Arizona Zone
Entomology and
Pathology

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File 3410
Code:
Route To:
Subject: 2000 Insect and Disease Aerial Detection Survey
To: Area Director
Bureau of Indian Affairs
Phoenix Area Office
P.O. Box 10
Phoenix, AZ 85001

Date: November 17, 2000

The annual insect and disease aerial detection survey was conducted over the Fort Apache Indian Reservation on August 14, 15 and 16, 2000. This letter provides a summary of insect and disease conditions recorded on the reservation on those dates.

Bark beetle activity in ponderosa pine increased in 2000 (414 acres) compared to 1999 (236 acres). The bark beetle mortality was scattered throughout the Reservation. Mortality is being attributed to *Ips* species (120 acres), and western pine beetle (294 acres). Mortality occurred mainly in small pockets of 1-10 trees. Tree mortality figures, especially *Ips* data, may be conservative for 2000 due to very late season fading of infested trees which may have occurred after our survey.

Douglas-fir mortality decreased in 2000. Douglas-fir beetle caused mortality was recorded on 5 acres this year and 175 acres in 1999. Spruce beetle mortality was seen on 35 acres this year.

Aspen defoliation increased in 2000 to 9,145 acres (light 5,950 acres and heavy 3,195 acres) compared to 3,180 acres in 1999.

No western spruce budworm defoliation was apparent on the Reservation in 2000.

No defoliation by *Nepytia janetae* was recorded in 2000 compared to 8,630 acres in 1999. However, some areas previously defoliated in 1998 and 1999 showed little sign of recovery. This could be attributed to drought stress. No spruce aphid activity had been seen on the reservation in 1999; however, this insect was at outbreak levels in 2000. Defoliation was recorded on 87,509 acres (75,284 acres light and 12,225 acres heavy) throughout the host type.

A total of 7,086 acres of light drought stress was recorded throughout the reservation which includes the areas that had been subjected to defoliation by *Nepytia janetae*.

Fire was recorded on 22,429 acres scattered throughout the reservation, an increase from 9,200 acres in 1999.

Electronic format copies of the map files and data are available to the Area Office, to Fort Apache Bureau of Indian Affairs staff, and to Tribal Forestry staff for use on any projects where this information would be of value. Please forward this letter to the appropriate personnel.



If you have any questions concerning the survey, the information included here, or the availability of maps, please feel free to contact Bobbe Fitzgibbon (520-556-2072) or Steve Dudley (520-556-2071).

/s/ *John Anhold*

JOHN ANHOLD
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